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EXAMINER
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GUPTA, PARUL H

ART UNIT	PAPER NUMBER
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2627

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/07/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/626,141

Applicant(s)

OSAKABE, KATSUICHI

Examiner

Parul Gupta

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 December 2006.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-20 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. Claims 1-19 are pending for examination as interpreted by the examiner. The arguments filed on 12/4/06 were also considered with the following results.

#### ***Claim Objections***

2. Claim 16 is objected to because of the following informalities: minor typographical errors such as the misspelling of the word "linear" in line 7. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 17 and 18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims directed to computer programs per se are not statutory subject matter. See MPEP 2106 IV B 1(a). On the other hand, a claim to a tangible computer-readable medium encoded with a computer program is statutory because it is a computer element which defines structural and functional interrelationships between the computer program and other components of a computer which permit the computer program's functionality to be realized. The claims should read "a computer program, embodied on a computer-readable medium, which when executed by a computer..." in order to be considered statutory.

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 4, 8, 9, 11, 15, and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Ogawa, US Patent 6,704,269.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claim 1, Ogawa discloses an optical disk recording apparatus for forming pits (figure 2(b)) on a recording surface of an optical disk (element 10 of figure 1) of a given type at a given recording speed by applying a laser light (part of element 13 of figure 1) in the form of a sequence of multiple pulses obtained by intermittently turning on and off the laser light according to a given multi-pulse pattern (figure 2(a)), the apparatus comprising: a write strategy circuit (figure 1, element 26) that is set with a pattern table (any one of Tables 1-5 of column 7 and see column 10, lines 13-19 and 23-31) and controls the turning on and off of the laser light according to a multi-pulse pattern ("recording strategies" of column 10, lines 14) selected from the pattern table in correspondence to a length of the pit to be formed (column 5, lines 5-28); a storage

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section (34) that stores a plurality of pattern tables (Tables 1-5 of column 7 and column 10, lines 13-19) of different kinds, each pattern table containing a plurality of multi-pulse patterns ("recording strategies" of column 10, line 14) corresponding to a plurality of lengths of the pit (column 5, lines 5-8) each of said plurality of multi-pulse patterns representing a sequence of multiple pulses of laser light effected by intermittently turning on and off the laser light (figure 2(a) and column 9, lines 37-42); and a control section (36) that selects one of the pattern tables based on either one or both of the recording speed and the type of the optical disk (column 10, lines 24-26); and that reads out the selected pattern table from the storage section and sets the read pattern table in the write strategy circuit (column 10, lines 23-31).

Regarding claim 8, Ogawa discloses an optical disk recording apparatus for forming pits (figure 2(b)) on a recording surface of an optical disk (element 10 of figure 1) of a given type at a given recording speed by applying a laser light (part of element 13 of figure 1) in the form of a sequence of multiple pulses obtained by intermittently turning on and off the laser light according to a given multi-pulse pattern (column 9, lines 37-42) while rotating the optical disk at a constant angular velocity such that a linear velocity of the optical disk varies (thus, settings are dictated by the linear velocity as given in column 10, lines 16-20), the apparatus comprising: a write strategy circuit (figure 1, element 26) that is set with a pattern table (any one of Tables 1-5 of column 7 and see column 10, lines 13-19 and 23-31) and controls the turning on and off of the laser light according to a multi-pulse pattern selected from the pattern table in correspondence to a length of the pit to be formed (column 5, lines 5-28); a storage

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section (34) that stores a plurality of pattern tables (any one of Tables 1-5 of column 7) of different kinds, each pattern table containing a plurality of multi-pulse patterns ("recording strategies" of column 10, line 14) corresponding to a plurality of lengths of the pit (column 5, lines 5-8), each of said plurality of multi-pulse patterns representing a sequence of multiple pulses of laser light effected by intermittently turning on and off the laser light (column 9, lines 37-42); and a control section (36) that selects one of the pattern tables based on either one or both of the recording speed and the type of the optical disk (column 10, lines 24-26), and that reads out the selected pattern table from the storage section and sets the read pattern table in the write strategy circuit (column 10, lines 23-31).

Regarding claim 15, Ogawa discloses in column 10 a method of forming pits on a recording surface of an optical disk of a given type at a given recording speed (lines 13-20) by applying a laser light (part of element 13 of figure 1) in the form of a sequence of multiple pulses obtained by intermittently turning on and off the laser light according to a given multi-pulse pattern (column 9, lines 37-42), the method comprising: a write strategy process (done by "recording signal modification circuit of lines 28-29) settable with a pattern table (any one of Tables 1-5 of column 7 and see column 10, lines 13-19 and 23-31) and capable of controlling the turning on and off of the laser light according to a multi-pulse pattern ("recording strategies" of line 14) selected from the pattern table in correspondence to a length of the pit to be formed (column 5, lines 5-28); a storage process (done by element 34 of figure 1) of storing a plurality of pattern tables of different kinds in a storage, each pattern table containing a plurality of multi-pulse

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patterns ("recording strategies" of line 14) corresponding to a plurality of lengths of the pit (column 5, lines 5-8), each of said plurality of multi-pulse patterns representing a sequence of multiple pulses of laser light effected by intermittently turning on and off the laser light (column 9, lines 37-42); and a control process (done by element 36 of figure 1) of selecting one of the pattern tables based on either one or both of the recording speed and the type of the optical disk (lines 24-26), and that reads out the selected pattern table from the storage section and sets the read pattern table in the write strategy circuit (lines 23-31).

Regarding claim 16, Ogawa discloses in column 10 a method of forming pits on a recording surface of an optical disk of a given type at a given recording speed (lines 13-20) by applying a laser light in the form of a sequence of multiple pulses obtained by intermittently turning on and off the laser light according to a given multi-pulse pattern (column 9, lines 37-42) while rotating the optical disk at a constant angular velocity such that a linear velocity of the optical disk varies relative to a spot of the laser light (thus, settings are dictated by the linear velocity as given in column 9, lines 31-37), the method comprising: a write strategy process (done by "recording signal modification circuit of lines 28-29) settable with a pattern table (any one of Tables 1-5 of column 7 and see column 10, lines 13-19 and 23-31) and capable of controlling the turning on and off of the laser light according to said linear velocity and a multi-pulse pattern ("recording strategies" of line 14) selected from the pattern table (any one of Tables 1-5 of column 7) in correspondence to a length of the pit to be formed (column 5, lines 5-28); a storage process (done by element 34 of figure 1) of storing a plurality of pattern

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tables of different kinds in a storage, each pattern table containing a plurality of multi-pulse patterns (lines 13-16) corresponding to a plurality of lengths of the pit (column 5, lines 5-54), each of said plurality of multi-pulse patterns representing a sequence of multiple pulses of laser light effected by intermittently turning on and off the laser light (column 9, lines 37-42); and a control process (done by element 36 of figure 1) of selecting one of the pattern tables based on either one or both of the recording speed and the type of the optical disk (column 10, lines 24-26), and that reads out the selected pattern table from the storage section and sets the read pattern table in the write strategy circuit (column 10, lines 23-31).

Regarding claim 17, Ogawa teaches a program, embodied on a computer-readable medium (inherent to method of claim 15), for use in an optical disk recording apparatus designed for forming pits on a recording surface of an optical disk of a given type at a given recording speed (column 10, lines 13-20) by applying a laser light in the form of a sequence of multiple pulses obtained by intermittently turning on and off the laser light according to a given multi-pulse pattern (column 9, lines 37-42), the program being executable by the optical disk recording apparatus for performing a method comprising: a write strategy process (done by "recording signal modification circuit of column 10, lines 28-29) settable with a pattern table (any one of Tables 1-5 of column 7 and see column 10, lines 13-19 and 23-31) and capable of controlling the turning on and off of the laser light according to a multi-pulse pattern ("recording strategies" of column 10, line 14) selected from the pattern table (any one of Tables 1-5 of column 7) in correspondence to a length of the pit to be formed (column 5, lines 5-28); a storage



process (done by element 34 of figure 1) of storing a plurality of pattern tables of different kinds in a storage, each pattern table containing a plurality of multi-pulse patterns (column 10, lines 13-16) corresponding to a plurality of lengths of the pit (column 5, lines 5-54), each of said plurality of multi-pulse patterns representing a sequence of multiple pulses of laser light effected by intermittently turning on and off the laser light (column 9, lines 37-42); and a control process (done by element 36 of figure 1) of selecting one of the pattern tables based on either one or both of the recording speed and the type of the optical disk (column 10, lines 24-26), and that reads out the selected pattern table from the storage section and sets the read pattern table in the write strategy circuit (column 10, lines 23-31).

Regarding claim 18, Ogawa teaches a program, embodied on a computer-readable medium (inherent to method of claim 16), for use in an optical disk recording apparatus designed for forming pits on a recording surface of an optical disk of a given type at a given recording speed (column 10, lines 13-20) by applying a laser light in the form of a sequence of multiple pulses obtained by intermittently turning on and off the laser light according to a given multi-pulse pattern (column 9, lines 37-42) while rotating the optical disk at a constant angular velocity such that a linear velocity of the optical disk varies relative to a spot of the laser light (thus, settings are dictated by the linear velocity as given in column 9, lines 31-37), the program being executable by the optical disk recording apparatus for performing a method comprising: a write strategy process (done by "recording signal modification circuit of column 10, lines 28-29) settable with a pattern table (any one of Tables 1-5 of column 7 and see column 10, lines 13-19 and

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23-31) and capable of controlling the turning on and off of the laser light according to a multi-pulse pattern ("recording strategies" of column 10, line 14) selected from the pattern table (any one of Tables 1-5 of column 7) in correspondence to a length of the pit to be formed (column 5, lines 5-28); a storage process (done by element 34 of figure 1) of storing a plurality of pattern tables of different kinds in a storage, each pattern table containing a plurality of multi-pulse patterns (column 10, lines 13-16) corresponding to a plurality of lengths of the pit (column 5, lines 5-54), each of said plurality of multi-pulse patterns representing a sequence of multiple pulses of laser light effected by intermittently turning on and off the laser light (column 9, lines 37-42); and a control process (done by element 36 of figure 1) of selecting one of the pattern tables based on either one or both of the recording speed and the type of the optical disk (column 10, lines 24-26), and that reads out the selected pattern table from the storage section and sets the read pattern table in the write strategy circuit (column 10, lines 23-31).

Regarding claim 19, Ogawa discloses a system for forming pits (figure 2(b)) on a recording surface of an optical disk of a given type at a given recording speed (column 10, lines 13-20) by applying a laser light in the form of a sequence of multiple pulses obtained by intermittently turning on and off the laser light according to a given multi-pulse pattern (column 9, lines 37-42), the system comprising: an optical disk (element 10 of figure 1); and a disk recording apparatus, said apparatus comprising: a write strategy circuit (figure 1, element 26) that is set with a pattern table (any one of Tables 1-5 of column 7 and see column 10, lines 13-19 and 23-31) and controls the turning on and off of the laser light according to a multi-pulse pattern ("recording strategies" of

column 10, line 14) selected from the pattern table in correspondence to a length of the pit to be formed (column 5, lines 5-54), a storage section (done by element 34 of figure 1) that stores a plurality of pattern tables (any one of Tables 1-5 of column 7) of different kinds, each pattern table containing a plurality of multi-pulse patterns ("recording strategies" of column 10, line 14) corresponding to a plurality of lengths of the pit (column 5, lines 5-28), each of said plurality of multi-pulse patterns representing a sequence of multiple pulses of laser light effected by intermittently turning on and off the laser light (column 9, lines 37-42), and a control section (done by element 36 of figure 1) that selects one of the pattern tables based on either one or both of the recording speed and the type of the optical disk (column 10, lines 24-26), and that reads out the selected pattern table from the storage section and sets the read pattern table in the write strategy circuit (column 10, lines 23-31).

Regarding claim 20, Ogawa teaches a system for forming pits (figure 2(b)) on a recording surface of an optical disk of a given type at a given recording speed (column 10, lines 13-20) by applying a laser light in the form of a sequence of multiple pulses obtained by intermittently turning on and off the laser light according to a given multi-pulse pattern (column 9, lines 37-42) while rotating the optical disk at a constant angular velocity such that a linear velocity of the optical disk varies (thus, settings are dictated by the linear velocity as given in column 9, lines 31-37), the apparatus comprising, the system comprising: an optical disk (element 10 of figure 1); and a disk recording apparatus, said apparatus comprising: a write strategy circuit (figure 1, element 26) that is set with a pattern table (any one of Tables 1-5 of column 7 and see column 10, lines

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13-19 and 23-31) and controls the turning on and off of the laser light according to a multi-pulse pattern ("recording strategies" of column 10, line 14) selected from the pattern table in correspondence to a length of the pit to be formed (column 5, lines 5-28), a storage section (done by element 34 of figure 1) that stores a plurality of pattern tables (any one of Tables 1-5 of column 7) of different kinds, each pattern table containing a plurality of multi-pulse patterns ("recording strategies" of column 10, line 14) corresponding to a plurality of lengths of the pit (column 5, lines 5-54), each of said plurality of multi-pulse patterns representing a sequence of multiple pulses of laser light effected by intermittently turning on and off the laser light (column 9, lines 37-42), and a control section (done by element 36 of figure 1) that selects one of the pattern tables based on either one or both of the recording speed and the type of the optical disk (column 10, lines 24-26) and based on the varying linear velocity of the optical disk (thus, settings are dictated by the linear velocity as given in column 9, lines 31-37), and that reads out the selected pattern table from the storage section and sets the read pattern table in the write strategy circuit (column 10, lines 23-31).

Regarding claims 2 and 9, Ogawa teaches in figure 1 the optical disk recording apparatus according to claims 1 and 8, respectively, wherein the storage section (34) stores the plurality of the pattern tables (any one of Tables 1-5 of column 7) in correspondence to a plurality of basic cycles of turning on and off the laser light (column 9, lines 37-42), such that each pattern table contains the plurality of the multi-pulse patterns ("recording strategies" of column 10, line 14), all of which are arranged

according to the basic cycle allotted to each pattern table (settings within storage unit are given in column 10, lines 16-19) and in matching with the plurality of the lengths of the pit (column 5, lines 5-54).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa in view of Hara, US Patent 6,044,055.

Ogawa teaches the limitations of the given write methods of claims 1 and 8, but does not teach the further limitations of claims 6 and 13.

Regarding claim 6, Hara teaches the optical disk recording apparatus, wherein the storage section stores the multi-pulse patterns that have cycles of turning on and off the laser light ranging from 0.5T cycle through 3T cycle (figure 6).

Regarding claim 13, Hara teaches the optical disk recording apparatus, wherein the storage section stores the multi-pulse patterns that have cycles of turning on and off the laser light ranging from 0.5T cycle through 3T cycle (figure 6).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include the concept of the broader range as taught by Hara into the system of Ogawa. This would serve the purpose of allowing recording compensation to be performed easily in accordance with the linear velocity (column 5, lines 8-11 of Hara).

6. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa in view of Hara in view of Kobayashi et al., US Patent 5,367,514.

Ogawa in view of Hara teaches the limitations of claims 6 and 14, but fails to teach the further limitations of claims 7 and 14. In addition, Hara teaches in figure 6 patterns having a cycle of 0.5T to 1.5T, but fails to explicitly explain that the apparatus is used for test recording.

Regarding claim 7, Kobayashi et al. teaches the optical disk recording apparatus, wherein the control section performs different sessions of test recording (column 13, lines 47-59) separately from each other with using the respective multi-pulse patterns having the cycles ranging from 1.5T through 3T (column 14, lines 52-64) to evaluate respective qualities of the different sessions of the test recording before an actual recording, and selects one of the multi-pulse patterns having the cycles ranging from 1.5T through 3T based on the respective qualities evaluated by the different sessions of the test recording (column 14, lines 52-64).

Regarding claim 14, Kobayashi et al. teaches the optical disk recording apparatus, wherein the control section performs different sessions of test recording (column 13, lines 47-59) separately from each other with using the respective multi-pulse patterns having the cycles ranging from 1.5T through 3T (column 14, lines 52-64) to evaluate respective qualities of the different sessions of the test recording before an actual recording, and selects one of the multi-pulse patterns having the cycles ranging from 10.5T through 3T based on the respective qualities evaluated by the different sessions of the test recording (column 14, lines 52-64).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include the concept of test recording with the given cycles as taught by Kobayashi et al. into the system of Ogawa in view of Hara. The motivation would be to accurately calibrate the laser using values that are given as conventional (column 14, lines 45-51 of Kobayashi et al.).

7. Claims 3, 5, 10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa in view of Kobayashi et al. in view of Narumi et al., US Patent 2004/0052176.

Ogawa teaches the limitations of claims 2, 4, 9, and 11, but fails to teach the further limitations of claims 3, 5, 10, and 12.

Regarding claim 3, Kobayashi et al. teaches the optical disk recording apparatus, wherein the storage section (element 49 of figure 25) stores a 1T pattern table corresponding to a pattern table of the basic cycle of 1T, so that the 1T pattern table enables the write strategy circuit to control the turning on and off of the laser light according to the multi-pulse patterns of the basic cycle of 1T, and stores a 2T pattern table corresponding to a pattern table of the basic cycle of 2T, so that the 2T pattern table enables the write strategy circuit to control the turning on and off of the laser light according to the multi-pulse patterns of the basic cycle of 2T (done by element 13 of figure 10).

Regarding claim 10, Kobayashi et al. teaches the optical disk recording apparatus, according to claim 9, wherein the storage section (element 49 of figure 25) stores a 1T pattern table corresponding to a pattern table of the basic cycle of 1T, so

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that the 1T pattern table enables the write strategy circuit to control the turning on and off of the laser light according to the basic cycle of 1T, and stores a 2T pattern table corresponding to a pattern table of the basic cycle of 2T, so that the 2T pattern table enables the write strategy circuit to control the turning on and off of the laser light according to the basic cycle of 2T (done by element 13 of figure 10).

Regarding claim 5, Kobayashi et al. teaches the optical disk recording apparatus, wherein the control section performs a first test recording with using the 1T pattern table to evaluate a quality of recording and a second test recording with using the 2T pattern table to evaluate a quality of recording separately from the first test recording before performing an actual recording, and selects one of the 1T pattern table and the 2T pattern table based on the respective qualities evaluated by the first test recording and the second test recording (concept of test recording is taught in column 13, lines 47-59 and column 14, lines 52-64).

Regarding claim 12, Kobayashi et al. teaches the optical disk recording apparatus, wherein the control section performs a first test recording with using the 1T pattern table to evaluate a quality of recording and a second test recording with using the 2T pattern table to evaluate a quality of recording separately from the first test recording before performing an actual recording, and selects one of the 1T pattern table and the 2T pattern table based on the respective qualities evaluated by the first test recording and the second test recording (concept of test recording is taught in column 13, lines 47-59 and column 14, lines 52-64).



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Kobayashi et al. does not explicitly teach the 1T and 2T pattern tables, but rather, different pattern tables that are not specified. In paragraphs 0023 and 0024, Narumi et al. teaches the separation of 1T and 2T cycles for various purposes.

It would have been obvious to one of ordinary skill in the art at the time of the invention to include the concept of separating 1T and 2T cycles as taught by Narumi et al. into the system of Ogawa in view of Kobayashi et al. This would serve the purpose of reducing problems even in the case of high recording linear velocity (paragraph 0024 of Narumi et al.).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include the concept of test recording with the given cycles as taught by Kobayashi et al. into the system of Ogawa. The motivation would be to accurately calibrate the laser using values that are given as conventional (column 14, lines 45-51 of Kobayashi et al.).

***Allowable Subject Matter***

8. Claims 4 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art of record taken individually or in combination fails to disclose dynamically setting the selected pattern table in the write strategy circuit based on the monitored change of the recording speed. The closest prior art, Sasa et al., US Patent 7,061,847 discloses linearly varying the write power of pulses in accordance with the linear speed.

***Response to Arguments***

9. Applicant's arguments with respect to the claimed invention have been considered, but are not persuasive or are moot in view of the new grounds of rejection.

Applicant contends that Kobayashi et al. does not teach storing multiple pattern tables that contain multi-pulse patterns and that there is no suggestion of what the stored patterns may comprise. However, column 15, lines 26-38 and column 16, lines 60-68 clearly state that the pattern memory means ("storage section") stores patterns ("tables") of multi-pulse strings ("patterns"). The read-out means actually select one of the string patterns in accordance with certain conditions (column 15, lines 26-38).

Applicant contends that the references given do not contain storing different types of selectable pattern table, each pattern table having a set of multi-pulse pattern that correspond to a plurality of lengths of pit. However, Kobayashi et al. is relied upon to teach this concept in the office action. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references

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individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant contends that Kobayashi does not contain selecting a pre-stored pattern table based on the recording speed and/or disk type as linear recording velocity is not the same as recording speed of an optical disk. However, Kobayashi teaches select one of the string patterns in accordance with the "run length judgement" (column 17, lines 25-38), which also accounts for the recording speed.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

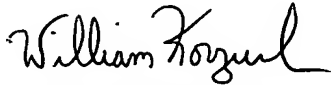
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Parul Gupta whose telephone number is 571-272-5260. The examiner can normally be reached on Monday through Thursday, from 8:30 AM to 7 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Korzuch can be reached on 571-272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PHG  
3/5/07

  
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